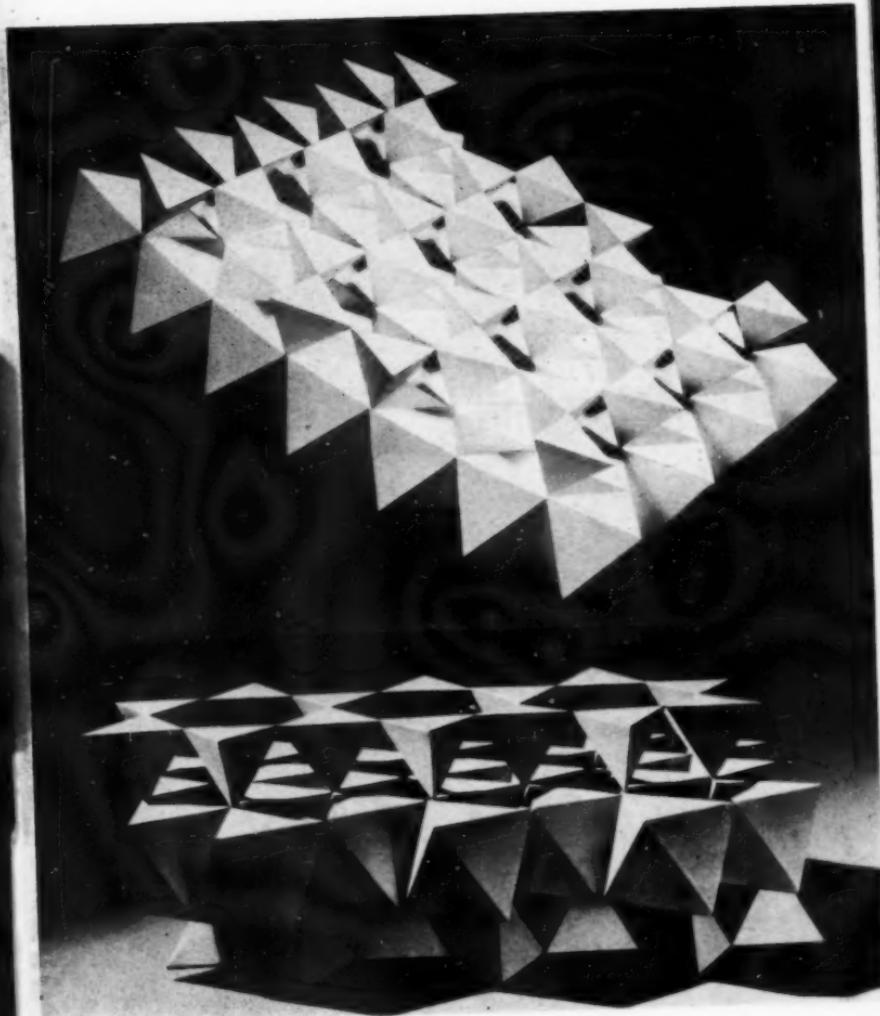


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## ASBESTOS THE WORD

The mineral has been known by two names—first Amianthus or Amiantus, and later Asbestos.

Amianthus is the Greek *Amiantos*. “A” is the negative and *miaino* means to paint over something with another color, to stain or dye it, and thus to defile, soil, taint, pollute, corrupt it, make it impure. The adjective *amianto* was applied to this undefilable mineral, for on being thrown into the fire it was not only not consumed by it or diminished by it, but seemed positively to be purified by it. Pliny reports that after the stains were burnt out, a piece of asbestos cloth “came out of the flames whiter and cleaner than it could possibly have been rendered by the aid of water”.

Such words were doubtless based on observation, but he was guessing when he went on to say that the natural color of the mineral was red, only becoming white through the agency of fire, and that it grew in the deserts of India scorched by the burning rays of the sun. “Here, where no rain is ever known to fall”, he writes, “and amid multitudes of deadly serpents, it becomes habituated to resist the action of fire”. It is very rare, and those who find it sell it at prices equal to those given for the finest pearls. Moreover “it effectually counteracts all noxious spells, those wrought by magicians in particular”.

Apart from all this, the realization that it was not affected by fire led to the belief that it did in fact ignite and, once ignited, went on burning forever without being consumed. In this respect the word *amiantos* was probably also applied to a mineral which wasn’t asbestos at all but a “fabulous stone” which was reputed to burn with an unquenchable flame and was more likely to have been unslaked lime. However that may be, this second attribute gave the mineral its other name.

*Asbestos* is another Greek word. “A” is the negative again, and *sbestos* is the adjective from the verb *sbennumi* meaning to quench, die down, dry up, extinguish. Asbestos is the inextinguishable material, the mineral which once it starts burning never goes out. It has thus acquired a name which contradicts its essential characteristics, which is

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that it does not burn.

The mineral was called undefilable and inextinguishable, but never what one would have expected, incombustible. *Amiantos* came into the English language as *amianthus* and survived till the beginning of the 20th century, when it gave way to *asbestos*. In the early 19th century both words were used in England, though it is likely *amianthus* was reserved for the silkier, softer types. The poet Robert Southey (1774-1843) used both words in *The Young Dragon*, which he wrote about 1815:

With amianth he lined the nest  
An incombustible asbest.

Asbestos is the word used in North America and in North European languages (German: *asbest*). But *amiantos* has held its ground in the southern Latin languages: *amiante* in French, *amianto* in Italian, *amianto* in Spanish.

Marco Polo found the mineral being called salamander; in Germany it has been known as Stone Flax (*steinflachs*), and French-Canadian miners have called it Cotton Stone (*pierre-a-colon*). One type of asbestos has been called by a Greek word which means Woolly Stone (*crocidolite*), another type by a Greek word meaning Fine Hair of Gold (*chrysotile*).

(Réprinted from the booklet "Asbestos the Raw Material", see this issue, page 6.)

---

## THE COVER

Photographs of models of the molecular structure of asbestos from the booklet *Asbestos The Raw Material* published by Cape Asbestos Fibres Limited, a subsidiary of The Cape Asbestos Company Limited. The top model shows how in the structure of Chrysotile (white) asbestos, the molecules fit together to form a tubular structure—hollow cylinder fibres; whereas those of Amphibole Asbestos (Blue Asbestos and Amosite) the molecules fit together to form straight narrow strips—solid rod fibres.

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## ASBESTOS THE RAW MATERIAL

### Booklet From Cape Asbestos

Object of superstition and curiosity up to the 18th century, Asbestos is still something of a mystery. No one knows for certain how the rock turns to fibre, how much heat, time or pressure has been required to make the transformation or if indeed these are the relevant factors.

New light has been brought to bear on this "magic mineral", as it has so often been called, however, by a finely produced, fully illustrated, 30-page booklet called "Asbestos The Raw Material" just published by Cape Asbestos Fibres Limited, a subsidiary of The Cape Asbestos Company Limited which was founded in London in 1893.

A brief introductory section on The Myth—Asbestos in History and Asbestos the Word—is followed by an examination of The Reality, opening with the mineralogical classification of the various types. A close analysis of the difference between the two main groups of asbestos is illustrated with photographs\* of models of the molecular structure of asbestos specially made for the purpose—the first time, it is believed, this has ever been attempted. There are photographs too of asbestos fibres magnified 80,000 times on an electron microscope.

The central part of the booklet describes the Cape Group's Amosite and Blue Asbestos mines in the Cape Province and the Transvaal, with a colored Flow Diagram of the Production of Asbestos, photographs of the mines and a map.

A final section deals with the commercial Applications of Amosite and Blue Asbestos, gives a note on Preparation and Fiberization, and a Summary of Grades.

Copies of "Asbestos The Raw Material" can be obtained from the head office of Cape Asbestos Fibres Limited at 114 Park Street, London W. 1, England.

\*Illustrated on our front cover page.

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## SALES TREND IN THE ASBESTOS-CEMENT FIELD IN EUROPE

By: G. Stock, B.Sc., A.M.I.C.E.

It has been our custom to print an article by Mr. G. Stock, Manager of Asbestos Cement Engineering Company, Hauptstrasse 26, Vaduz-Liechtenstein (Switzerland) in every June number. Mr. Stock has again written an article for us and we take pleasure in publishing it.

(Editor's Note)

I have pleasure in informing readers that the sales in Europe of Asbestos Cement Sheets and Pipes are developing at a very high rate. For example, the biggest group making Asbestos Cement in Germany reports that its sales have doubled in the last four years and that they have reached an output for one Group alone of approximately \$60,000,000 during 1960. The output of this company represents about 60% of the sales in Germany, so that one can assume that sales there have reached about \$100,000,000 a year. The demand in Germany is so big that Sheets are, for the first time, being imported from neighboring countries, i.e., Belgium and Switzerland.

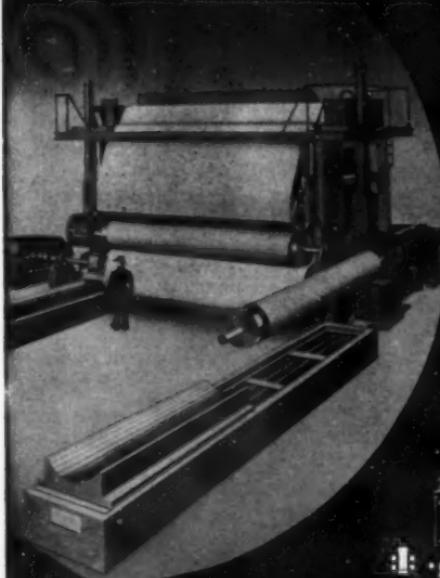
For the next few years, this trend in sales should increase because, after a long delay, Germany published, in March of this year, new standards for Asbestos Cement Down Pipes.

Down Pipes in German buildings were, up to the present time, either cast iron or glazed ware. From now on, Asbestos Cement Down Pipes will be allowed in the building of houses inspected by the Government or mortgaged from public funds.

These new Standards bear the number 19830, 19831 and 19841. They call for six diameters and not less than 15 lengths of the Socketed Pipe. For the specials, they have any number of combinations between lengths, diameters of main pipe and diameters of the adjoining pipe.

Thus, big stocks must be carried by merchants. They call also for a high standard of quality because the minimum circumferential tensile strength prescribed is about 2,000 pounds per square inch (130 Kilos per square centi-

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meter). For the compression test, 3,250 pounds per square inch is prescribed (350 Kilos per square centimeter). For bending, a strength of 2,250 pounds per square inch is required (150 Kilos per square centimeter).

In England, sales of Asbestos Cement Socketed Pipes are also increasing rapidly and manufacturers find it difficult to cope with the demand. A single manufacturer is making more than 9,000 pipes per week.

One would have thought that sales of plastic pipes would have disturbed the sales of Asbestos Cement Pipes. Here I can inform readers that various Companies in Europe making Asbestos Cement Pipes have also started to make Plastic Pipes. Some make Pipes of P.V.C. (polyvinyl chloride) and although these are guaranteed not to alter their shape if hot water should flow through them, they have not proved a success in buildings. They do not keep their shape, although they are easy to install. Therefore, the demand is not very great.

Generally speaking, I can also report that the demand for machinery both for making Asbestos Cement Sheets and Asbestos Cement Pipes has, during this year, increased beyond expectation and the new plants which will be put up will certainly increase the consumption of Asbestos all over the world. For the making of Corrugated Sheets and Pressure Pipes, Blue asbestos is being used more and more in most factories in Europe.

---

NATIONAL INSULATION MANUFACTURERS ASSOCIATION has issued a booklet entitled "Re-Thinking Thermal Insulation". This booklet is a guide to the best use of thermal insulations under the changing conditions of modern industry . . . how insulation saves, controls and protects.

Copies of this very informative booklet and additional information are available from J. M. Barnhart, Executive Secretary, National Insulation Manufacturers Association, 441 Lexington Avenue, New York 17, New York.

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## ASBESTOS IN BRAKE LININGS AND CLUTCH FACINGS

*By: W. E. Sinclair, M.I.M.M.*

In terms of tonnage used in industry, asbestos plays a major part in the constructional field, more especially in the fabrication of asbestos-cement products. Its most important role in industry, however, is its wide and varied application in the engineering sphere and particularly in the fabrication of friction material for brakes and linings.

Even in the distant past, brakes of some kind formed a necessary part of all slow moving machinery and even cart wheels were fitted with wooden blocks to slow down or stop the cart when desired. Since then progress has witnessed the steady build up of faster moving machinery and road transport that required brakes of more substantial material than wooden blocks. In addition, in many machines, such as shaft winders and internal combustion motors of various kinds, the wheels or drums were set in motion by the transmission of power from the prime mover by a friction clutch in some form or other.

The fundamental action of brake shoes or clutch linings naturally tends to generate great heat and even ignition in some instances. This condition plus excessive wear quite obviously rendered the old type of brake or clutch material unsuitable. In consequence, the early forms ultimately gave way to the use of woven cotton and other fibrous structures.

With the development of still more powerful engines, high speeds became an accepted fact in many specially designed machines, as for example, shaft hoists and road motor vehicles. In some machines, where speed is not the main factor, heavy loads are responsible for excessive clutch wear, especially in earth-moving machinery, where functional operations are essentially impulsive and sporadic. As a result of this excessive wear, even the special fibrous structural material was found unable to resist attrition.

This is explained by the fact that the elements or fabric used in clutch or brake appliances tends to retard the free motion of the moving part and in so doing sets up

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extreme friction. The resultant effect is to convert kinetic energy of the moving part to heat. The best materials in such an action are those that cause the conversion most rapidly and then, dissipate the heat as quickly as possible. After many experiments to find a suitable material asbestos was tried and found to wholly satisfy the required conditions, proving to be the only material that withstood both the heat and the abnormal wear and tear.

For over fifty years, asbestos has provided a structural material indispensable for friction linings because of its inherent properties of heat resistance and non-inflammability.

Strangely enough, the great advance in the development of asbestos linings coincided, more or less, with the introduction of road motors in 1896, when the first asbestos linings were made in England. Later on, when motor cars were permitted to travel at faster road speeds, asbestos brake linings were recommended in America and, indeed, they were widely and strongly advertised by the slogan, "say it with brakes and save the flowers!"

These developments undoubtedly proved a great boon, not only to road users and the public, but to the asbestos industry, since it spelt the beginning of an important and continuous outlet for the mineral in the construction of friction material. At the beginning, this demand was essentially for long fibres but as time went on shorter fibres found a place in certain classes of linings.

The early type of brake consisted of woven asbestos fitted outside the circumference of the brake drum. This class formed nearly 85% of all brakes made at that time. Thirty years later, with the development of the internal type of brake band, a new structural form was devised. In this, a moulded class was found more suitable than the woven type. This, however, did not oust the woven structure altogether. Certain forms of woven linings continue to find useful application in special circumstances, although this comprises little more than 15% of all types in use today.

There are several different types of friction linings and many different structural forms. The material used in most of these consists basically of asbestos, even though, in some

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instances, it may be a minor constituent. However, it can be said that asbestos fibres form anything from 30% to 80% of the more important structures.

In the initial introduction of asbestos textiles as woven linings, the material was found to be structurally weak. This drawback was overcome by using asbestos yarn in which 15% cotton was incorporated. Now, other fibres such as nylon or glass may be blended to give length and strength to the material. In certain circumstances, several treated forms of this class of lining are in use. The more common type of woven material, however, is that having an all-asbestos base in which the fibres are spun round zinc wires. These are amongst the several kinds referred to as the metallic type as compared with the non-metallic fibrous structures.

An example of the metallic type is a newly developed asbestos woven friction material specially designed for use in winding and haulage gear, where high temperatures and arduous working conditions are encountered. The material consists of comparatively soft brake pads but has a zinc wire inclusion. Extensive field tests show it to have a stable coefficient of friction of from 0.38 to 0.46 and suitable for use where temperatures up to 300 degrees C are encountered. The structural form of this class of material is such that, in use, it possesses a relatively high degree of flexibility mainly because, when fitted, it is easily formed to any particular radius.

Braking material for powerful and high speed winders must conform to special requirements in quality and design, a fact that is clearly shown by the rule that, in the case of every winder the brake must be capable of holding the hoist against full steam or electrical torque, as the case may be. Therefore, every hoist whether large or small requires a clutch made to conform to special quality and design. Identical conditions apply in the case of friction hoists and haulage appliances.

Besides the class of material made from random or corded asbestos fibres re-inforced with varying proportions of non-ferrous wire, there are several laminated forms of friction material. These are usually designed for use in particular machines that conform to certain operating con-



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ditions. In one such type, a multi-layer woven structure is bonded together with wire inserted asbestos yarn, and the whole set in rubberized fabric lining.

A relatively new form, made especially for automotive transmission clutches or similar requirements, consists of a wet felted resilient mix of from 35% to 80% asbestos fibres blended with other materials and certain friction modifying agents. The whole is pulped and sheeted and then air-dried and heat cured.

Reference has been made to the introduction of moulded linings that followed the use of the original woven types. Nowadays, these are used to a greater extent than the woven or laminated types, except in special circumstances, as suggested in the examples quoted above.

The base of the various moulded linings consists essentially of asbestos fibres and resins. Fillers may also include other constituents in small proportions, such as, asbestos powder, ground rubber and non-ferrous metallic chippings. The manufacturing technique varies and may consist of either a wet or dry process, in both of which however, the ingredients are bonded together by different resins. The most common of these is phenolformaldehyde plus a saturant which, when added to the components mentioned form a mixture which is die-cured under heat and pressure into the required structural shape.

The increase in mechanization in industry has resulted in a growing demand for friction material to suit a wide range of new machines of varying designs and operational functions. These not only require linings of different structural form but special construction of the asbestos material to ensure positive and effective results.

Tests have shown that there is a pronounced decrease in the co-efficient of friction when linings are used in conditions that cause a rapid increase in temperature. To counter this, it was found that a suitable saturant, in certain structure, obviated the charring effect of the cotton in the material in some linings caused by high temperatures. Consequently, a saturant is but one example of structural make-up that, with an asbestos base, is an essential part of manufacturing technique.

The extent and growth of this industry is best indicated by the production values of friction linings made in the various countries.

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## J-M THERMAL INSULATIONS Used In Project MERCURY Spacecraft

Two unique thermal insulations, developed by Johns-Manville Research and previously successfully tested against extreme temperatures in outer space, were selected by the National Aeronautics and Space Administration to shield the United States' first astronaut when he was put into sub-orbital ballistic space travel aboard the project MERCURY spacecraft, May 5th, 1961.

External skin temperatures probably ranged from minus 100°F. to as high as plus 2,000°F. as the spacecraft built by McDonnel Aircraft Corporation, St. Louis, Missouri, went through varying atmospheric conditions during launching, sub-orbiting and re-entry. Protection of the spaceman and equipment in these extremes of temperature was vital to provide maximum protection from heat with a minimum of added weights. Materials required to do the super insulation job had to attain thermal efficiencies which only a year or two ago would have been considered theoretically impossible.

The two thermal insulations selected by the NASA to meet these atomic age spacecraft requirements were specially developed at the Johns-Manville Research Center at Manville, New Jersey, largest thermal insulation laboratories in the world. One of the insulations, "MIN-K", actually has a thermal conductivity considerably lower than that of still air, traditionally considered the lowest possible, according to Dr. Clifford F. Rassweiler, Vice President for Research and Development, Johns-Manville Corporation.

The second insulation used by McDonnel Aircraft Corporation was "THERMOFLEX", a blanket-like insulation composed of ceramic fibers produced from arc-furnace melts at temperatures higher than used in producing any other fibers. This material, because of its fluffy structure, offered high resistance to the passage of noise as well as heat during today's space flight. Shielding the astronaut from the high noise levels during launching of spacecraft MERCURY was deemed necessary by the designers.

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## HUYCK MAN

Both thermal insulations, the only ones aboard the nation's first manned space capsule, can withstand long-term exposure to temperatures far above those which the MERCURY spacecraft is expected to encounter, when it is put into orbit around the world later this year.

---

E. J. SULLIVAN, 64, retired District Manager, Industrial Insulations Division, Johns-Manville Corporation, passed away, Saturday, May 13th, 1961, at his home in Germantown, Pennsylvania. Due to illness, Mr. Sullivan had retired on May 1st, 1961, after 32 years with J-M.

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J. F. D. ROHRBACH, President of Raybestos-Manhattan, Inc., was honored at a Dinner with members of the New York University 50th Year Alumni Class. Mr. Rohrbach had been associated with the Raybestos Company as an Advisor since 1916, and played a part in the merger of Raybestos-Manhattan, Inc. in 1929. He joined R-M for full time in 1938, becoming Vice President and Director in 1939, Executive Vice President in 1944, and President in 1948. He was chosen for the New York University John T. Madden Award for outstanding achievement in business and professional life in 1953.

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VACATION COUNTDOWN is an eight-page illustrated brochure published by the National Safety Council and gives helpful tips on preparing for the family vacation. It also suggests how to make the trip safe and how to get the most out of vacations, whether traveling or staying at home. The brochure emphasizes water safety and the dangers of over-exertion, with special notes for do-it-yourselfers who spend their vacations around the house.

A single sample copy and further information on "Vacation Countdown" is available from the National Safety Council, 425 North Michigan Avenue, Chicago 11, Illinois.



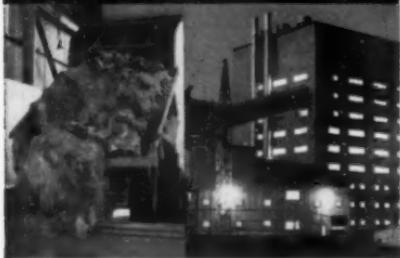
## *This is Carey-Canadian Asbestos* **from mine, to mill, to market**

*Here is your dependable source for the highest quality asbestos,  
consistently uniform from shipment to shipment.*

Complete information on Carey-Canadian Asbestos can be  
obtained by writing:

**Carey-Canadian Mines Ltd., P. O. Box 15095, Cincinnati, Ohio or  
Carey-Canadian Mines Ltd., East Broughton Station, P. Q., Canada**

modern milling methods . . .  
exacting quality control



swift flow of quality fibres  
and shorts to the market



## ATLAS ASBESTOS COMPANY LIMITED

Atlas Asbestos Company Limited announced its intention to set up separate and more specialized arrangements for the marketing of its "Ferodo" Friction Materials. In making this announcement, Mr. O. A. Gratias, President, also announced that W. S. Cowell would again become associated with the Company in the capacity of Consultant to the President. In that capacity, Mr. Cowell will assume full responsibility for the marketing of its "Ferodo" products. Mr. Cowell was formerly a Vice President of the Company and Manager of its Brakelining Sales Department for many years.

It is intended in the near future to form a new company to be known as Ferodo (Canada) Limited which will become entirely responsible for the merchandising and distribution of the complete line of "Ferodo" automotive and industrial friction materials. The products concerned are "Ferodo" Brake Linings, Brake Blocks and Clutch Facings, "Ferodo" Gold Line Bonded Brake Shoes, "Ferodo" Industrial Friction Materials and "Red Spot" Brake Linings. These products will continue to be manufactured in the Montreal factory of Atlas.

The present Marketing Division of the Company, under its Vice President, J. C. Anderson, will concentrate its efforts on the merchandising and selling of "Turnall" Asbestos Cement Building Materials, Pressure and Sewer Pipes, "Atlas" and "Newalls" Insulations, "Atlas" Asbestos Textiles and Industrial Products.

Pending the formation of the new "Ferodo" Company, Brake Lining sales will continue to be directed from the Head Office of the Atlas Asbestos Company Limited in Montreal.

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Carey will have a new look in 1961 in more ways than one. Carey's building products twins, PHILIP CAREY and MIAMI CAREY, have combined advertising and promotion efforts for a double punch at the building and remodeling industry.

# NORAMITE

## ... Crocidolite and Amosite Asbestos Products for Reinforcement of Plastics

Noramite identifies a group of new products which greatly extend the range of properties normally available in reinforcing fibers. Noramite products, all based on Amosite or Crocidolite asbestos, include prepared fibers, rovings, ropes and fabrics. Greater chemical resistance, higher moduli, and greater heat resistance are among the principal advantages of Noramite products.



**NAAC**

*In the United States*

**NORTH AMERICAN ASBESTOS CORPORATION**  
Board of Trade Building • Chicago 4, Illinois



*In Canada*

**CAPE ASBESTOS (CANADA) LIMITED**  
200 Bloor Street East • Toronto, Ontario

Subsidiaries of The Cape Asbestos Company, Ltd., London

## AUTOMOBILE SALES

March 1961

Passenger Cars .....	425,892
Motor Trucks .....	99,909
Motor Coaches .....	255
	526,056

In March 1960, a total of 789,511 motor vehicles were sold. In the three months of 1961 the total was 1,460,201.

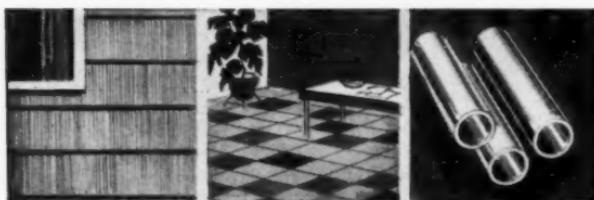
These figures were supplied by the Automobile Manufacturers Association, New Center Building, Detroit, Michigan.

BENJAMIN FOSTER COMPANY, Philadelphia, Pennsylvania, manufacturer of industrial adhesives and coatings used in the protection of thermal insulations, will further expand its operations by building a plant in Houston, Texas. The new plant, occupying 11,000 square feet on a 2 1/2-acre tract, will increase the efficiency of Foster services on all its products in nine Southwestern States which heretofore have been served from warehouse stocks in Houston. Present plans call for the new plant to be in operation by June 1st, 1961.

Foster, a pioneer in the development and manufacture of products for the protection of thermal insulations from weather, chemical and physical abuses, now operates manufacturing plants in Philadelphia, Niles, California and Windsor, Ontario, Canada.

**ASBESTOS FIBRES**  
**ASBESTOS WASTE**  
**Frank G. Ruggles Co. Inc.**  
26 BROADWAY  
NEW YORK 4, NEW YORK

# High grade asbestos fibers produced to your needs



Shingle and siding stock, floor tiles, brake linings, insulating coatings, pipe or plastics — name your product — Flintkote's research laboratories are completely equipped to determine and recommend the grade and characteristics of asbestos fiber your product needs. Flintkote Mines extensive facilities mill fibers to meet every requirement!

If asbestos fiber is a factor in your manufacturing process, call or write Flintkote for a quick answer to any problem.

## Flintkote Mines, Ltd.

(Subsidiary of the  
Flintkote Company)  
Thetford Mines, P.Q.,  
Canada • New York  
Office: 30 Rockefeller  
Plaza, New York 20, N.Y.



• Toronto Office: 30th  
Street, Longbranch,  
Toronto, Ont., Canada  
• London Office: Adam  
House, 1 Fitzroy Square,  
London W-1, England

## MARKET CONDITIONS

### GENERAL BUSINESS.

General business continues to show signs of a definite widespread improvement. Gross national product for April was  $2\frac{1}{2}$  percent higher than in March. This healthy advance is interpreted as meaning the economy has definitely started the long-predicted upturn. Economic analysts for the most part agree that the rise is based on underlying factors of real strength. Personal income reached an all-time high in April. This was immediately reflected by improvement in retail sales. Steel and automobile production are on the increase and many other signs of recovery are evident. The main point, however, is that general sentiment amongst businessmen and consumers has shown much improvement recently and we must never discount the very important part which sentiment plays in connection with our economic health.

### ASBESTOS—RAW MATERIAL.

April 1961 asbestos fibre shipments for the Industry at 88,815 tons were 844 tons or less than 1% lower than the same period last year.

Shipments to date at 261,247 tons are approximately 5% below the first four months of 1960.

The threat of a Canadian-wide railroad strike set for May 16th was averted when an understanding was reached between the Prime Minister of Canada, Presidents of the Canadian National and Canadian Pacific railroads and the Union President of the Non-Operating Personnel.

### ASBESTOS—MANUFACTURED GOODS.

*Asbestos Brake Lining.* The market situation at the present time for Replacement sales is showing an improvement over 1960. This year should be an excellent sales year for the Resale market as a greater number of cars are coming of age (4-5 years) and are ready for relines. Equipment sales are not expected to equal top years due to increasing sales of domestic compacts.

*Asbestos Paper.* Orders for this material have increased slightly but prices remain competitive for the business which is available. An improvement is anticipated in the overall sale of asbestos paper for the remaining months of this year. Orders for *Asbestos Millboard* have increased slightly due to improved economic conditions and prices are still extremely competitive. The volume for the balance of 1961 should increase over the first five months of this year.

*Asbestos-Cement Products.* There seems to be no significant change on the market situation for these products from that reported last month. The outlook for the remainder of the year should be better if the housing bill is passed. Because of the late start of the pickup in business, 1961 is not expected to be as good a year as 1960.

*High Pressure Insulation.* Orders for this material are coming in at about the same rate as the past sixty days although there are some signs of an increase in construction leading to larger volume. It is anticipated that orders for this material will increase somewhat over the corresponding period last year.

*Shingles—Roofing & Siding.* Asbestos Siding sales, while off compared to the same period of 1960, now show some improvement. It is believed that the asbestos siding business will be good for the rest of the year; in fact, some improvement is expected over the corresponding period of last year.

The above comments have been made by various informed executives in the Industry. All comments are welcome.

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NATIONAL GYPSUM COMPANY climaxed a year-long construction program with a ceremony, on April 19th, 1961, marking the completion of a major addition to its headquarters office building in Buffalo, New York.

The three-story addition was built almost entirely with National Gypsum's own products and boosts the company's total floor area to more than 100,000 feet—just over two acres.

## BUILDING

Construction contracts in the United States in April 1961 fell off slightly from earlier levels, according to F. W. Dodge Corporation. The April total of \$3,297,699,000 was 2% below the figure for April of last year.

According to Dodge Vice President and Chief Economist, George Cline Smith, the principal cause of the decline was extreme weakness in contracts for single-family houses. The contracts in April represented 74,588 single-family homes, the lowest figure for any April in the past six years, and 14% below April 1960. Because of continued strength in apartments and two-family houses, however, total dwelling units in April came to 106,369, a drop of only 4% from April of last year.

Dollar volume of residential building contracts in April amounted to \$1,454,331,000, down 2% from April 1960.

Gains and losses in non-residential building approximately balanced so that the April total of \$1,049,776,000 was just about the same as in April 1960. The principal increases were in schools, up 12% from a year ago, hospitals, up 43%, and churches, up 8%. Commercial building, the largest of the non-residential categories, was also up, by 2%.

However, industrial building contracts continue to lag, with the April total down 14% from April 1960.

Heavy engineering contracts, at \$793,592,000 in April, were down 5% from a year ago, despite a large percentage increase in electric utilities and a small increase in highways.

April figures showed few important changes in the pattern set by the first quarter of the year, except for some improvement in the large highway category, which changed from a minus factor to a plus.

Cumulative totals of construction contracts for the first four months of 1961, with percentage changes from the corresponding period last year, are: non-residential building \$3,682,782,000, up 2%; residential building \$4,659,750,000, no percentage change; and, heavy engineering \$2,811,827,000, up 11%—total construction \$11,154,359,000, up 3%.

# The world's largest asbestos mill enables Johns-Manville to offer

## 1. Higher quality fibre



Johns-Manville's new mill employs the most modern equipment and skilled technicians to assure highest quality within each grade.

## 2. Faster delivery of any quantity



This new mill's tremendous capacity permits speedily efficient attention to all orders, large and small.

## 3. Greater uniformity of grade

Each grade of J-M asbestos fibre is submitted to a rigorous series of tests that assure maximum uniformity.

Write to address below  
for further information and  
free copy of new illustrated  
8-page brochure



## Asbestos Fibre Division

Canadian Johns-Manville Co., Ltd.

Box 1500, Asbestos, P.Q., Canada, Telephone: 879-5431

WALTER S. CORRIE, Treasurer of *National Gypsum Company*, is retiring after 33 years of service. He served as Manager of the Bluebonnet, Texas, Ordnance plant operated by National Gypsum during World War II and was elected Treasurer in 1946. He will continue with National for a short period as an advisor to the newly-elected Treasurer, Fred A. Wagner.

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ASBESTOS-CEMENT PRODUCTS ASSOCIATION elected the following officers for a term of two years at their Annual Meeting on March 8th, 1961: *Robert R. Porter*, President; *William Feick, Jr.*, Vice President; *Fred K. Sweeney*, Treasurer; *A. L. Fowler*, Assistant Treasurer; and, *Norton B. Jackson*, Secretary.

*Romie L. Melton* has joined the Association as Assistant to Norton B. Jackson, with the title of Assistant Manager.

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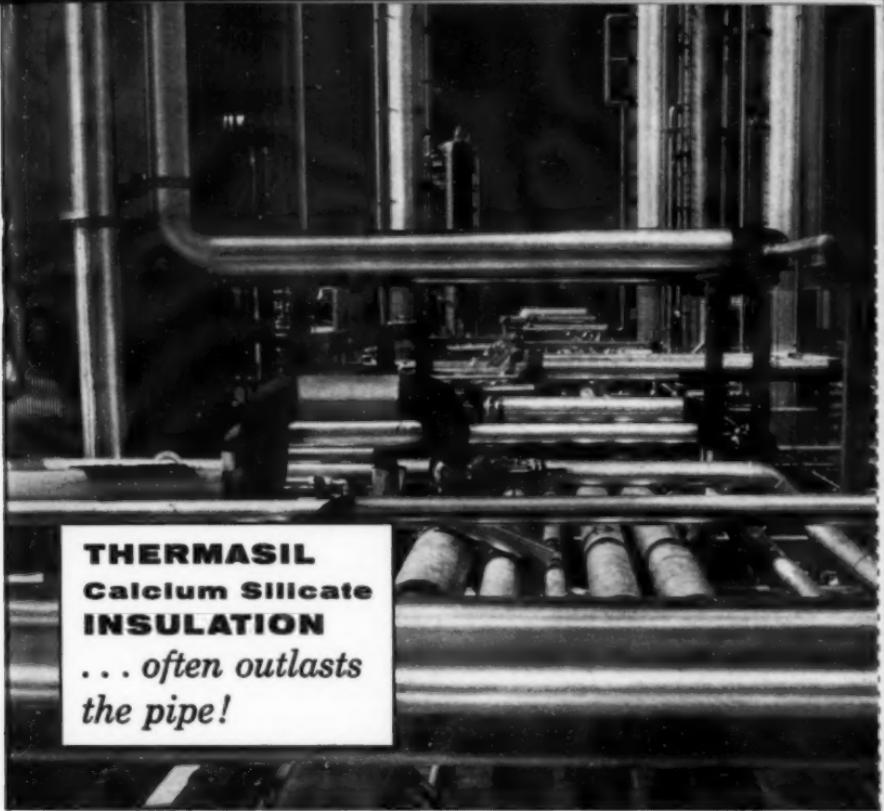
The United States Patent Office has registered "U. S. ROYAL" as a trademark for the complete line of fabrics manufactured by the Textile Division of UNITED STATES RUBBER COMPANY. The trademark applies to all industrial, asbestos and wearing apparel fabrics made by the rubber company, one of America's largest textile manufacturers.

The trademark "U. S. Royal" has been used for many years by the company to identify products made by its tire, mechanical and footwear divisions.

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An 80-page BRAKE SERVICE GUIDE to aid in servicing brake systems on popular passenger cars and light trucks is being offered by the Raybestos Division of *Raybestos-Manhattan, Inc.* The new Guide contains several sections of general and specific interest to mechanics and service station attendants.

For more information on the Brake Service Guide, contact your Raybestos Distributor or write directly to Raybestos Division of Raybestos-Manhattan, Inc., Bridgeport, Connecticut.



**THERMASIL**  
**Calcium Silicate**  
**INSULATION**  
*... often outlasts  
the pipe!*

THERMASIL Calcium Silicate frequently outlives equipment and piping. Moisture resistant and durable, shock resistant and structurally stable, THERMASIL makes your first cost your last. Teamed with sheet aluminum for protection against temperature extremes, sandstorms and tornadoes, THERMASIL is used throughout this Texas refinery to *keep heat balances constant*. For more information on B-E-H THERMASIL and the complete B-E-H line of industrial insulations for temperatures from sub-zero to 1900 F. see your distributor or write for new Catalog.



**BALDWIN-EHRET-HILL**  
500 Breunig Avenue      Trenton 2, New Jersey

THE RUBEROID CO. has announced preliminary plans for a major expansion of its roofing granule business. The company has purchased all but a small portion of a 915-acre tract of land at Annapolis, Missouri (approximately 100 miles south of St. Louis) and holds options to acquire the remaining property. Engineering studies are being conducted for the construction of a complete facility for the mining, milling, coloring and storage of granules.

---

PRECISION EQUIPMENT COMPANY has produced an automatic Profit Chart . . . a device every businessman needs. This new invention provides a means of figuring profits or establishing a selling price speedily and accurately.

Operation of the chart is extremely simple and the results are accurate. Complete instructions are included with each chart.

For your free Profit Chart write on your business letterhead to Precision Equipment Company, 4411 North Ravenswood Avenue, Chicago 40, Illinois, and be sure to mention the name of this magazine. To those of our readers who do not qualify as a business executive to receive a free Profit Chart, Precision will be pleased to send one for 50c.

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ARCHITECTURAL SALES DEPARTMENT, a newly-created building products service organization designed specifically to serve architects, was announced by G. H. Martens, Jr., Vice President and General Sales Manager of the Johns-Manville Building Products Division. This department will function as a consulting group to the architectural profession on the use and application of the company's broad line of asphalt, asbestos-cement, board and acoustical, flooring and insulation products.

*E. M. Fuller*, Vice President of Johns-Manville Sales Corporation, has been appointed Manager of the new Architectural Sales Department with offices at company headquarters in New York City.



*asbestos cement department*

TORINO - VIA S. TERESA 10 - ☎ 55.35.76 - 52.41.33

## NOTICE

*The R.C.M. Company (Revisione Costruzione Macchine) - 10, Via Santa Teresa - Turin - Italy, wishes to inform that anybody interested is invited to visit a very modern Factory in Italy where an R.C.M. automatic installation is in working activity for the manufacture and finishing of Asbestos-Cement pressure and non-pressure Pipes, also of small diametre.*

*Examination of this installation will clearly show the results reached by the R.C.M. Company in the construction of machinery for the Asbestos-Cement Industry.*

*This machinery permits the use of lower priced asbestos mixtures while producing the same quality product in accordance with the standards now in force.*

THE TRAVELERS INSURANCE COMPANIES have recently published the 1960 booklet of street and highway accident data, entitled "The Dishonor Roll".

Inquiries pertaining to its contents or distribution should be directed to Mr. J. G. O'Brien, The Travelers Insurance Companies, Hartford, Connecticut.

NATIONAL GYPSUM COMPANY has published a 12-page booklet entitled "Gold Bond Mineral Wool Insulation Products".

Copies of this Technical Bulletin No. 1784 (A.I.A. File No. 37-C) are available, upon request, from the National Gypsum Company, Buffalo 2, New York, or by writing to "ASBESTOS".

A GUIDE TO PAINTING ASBESTOS-CEMENT is the title of a 12-page technical information booklet recently issued by *Turners Asbestos Cement Company Limited*, Trafford Park, Manchester, England.

Interested readers may obtain a copy of this interesting and information booklet by writing to "ASBESTOS", 807 Western Saving Fund Building, Philadelphia 7, Pennsylvania.

FIBREBOARD PAPER PRODUCTS CORPORATION announced construction of a "modern, high speed" asphalt roofing plant near Martinez, California.

The plant, which will cost in excess of \$1,500,000, will replace the company's old, less efficient roofing plant at Emeryville, California and is expected to be in operation by the end of the year, producing a full line of asphalt shingles and roofing products. The new plant will include one of the most efficient roofing machines in the industry.

**WILHELM BURGDORF**  
*Importer of Raw Asbestos*  
P. O. Box 1131, BREMEN, GERMANY

# All machinery for the equipment of plants producing asbestos-cement pipes and sheets

covering the entire production process from the stock preparation to  
the testing of the finished product.

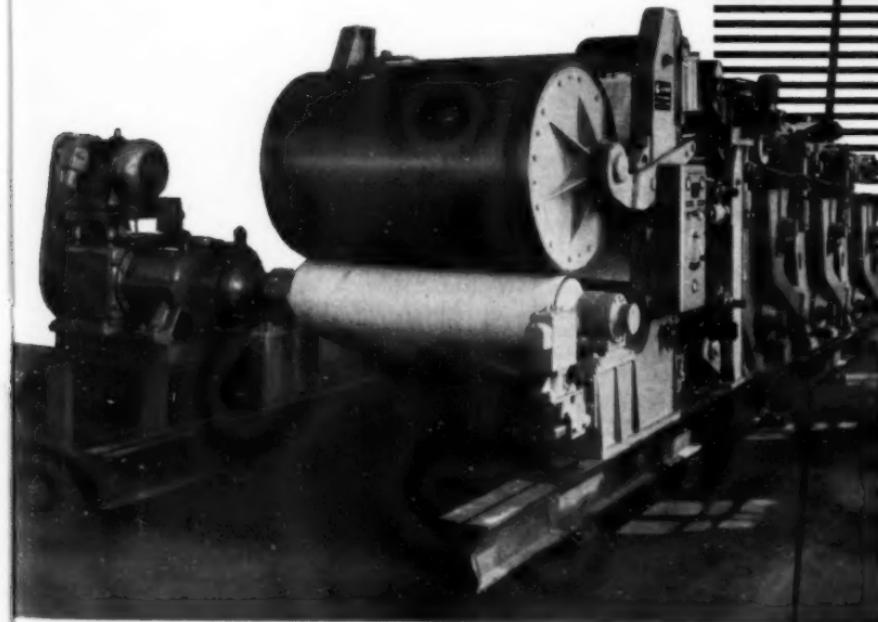
All machinery for wet or dry preparation of asbestos-cement / Asbestos  
tilos.

Sheet producing machines with one to three cylinder moulds, automatic  
or semi-automatic combined production lines for flat and corrugated  
sheets.

Piling equipment combined with cleaning and lubricating machinery  
for flat and corrugated steel sheets, suitable also for automatic opera-  
tion / punching and trimming machines / hydraulic presses.

Pipe winding machines for the production of pressure pipes of up to  
5 metres (16 ft. 5 in.) length and 1000 millimetres (3 ft. 3 in.) dia / lathes  
for pipes and joints / cut-off grinders / testing presses for pipes and  
joints / calenders for the forming of plain and joint-fitted pipes / man-  
dril pull off machines / autoclaves for hardening of asbestos-cement  
sheets and pipes as well as many other units, pumps and accessories.

Leaflets describing individual machines will be readily sent on request.



## J.M.VOITH A.G.

S t. Po e l t e n - A u s t r i a  
P. O. B. 168 / Tel. 2501 / Teletype 01510

SM 746



# PRODUCTION STATISTICS

## AFRICA (Rhodesia)

(Published by Rhodesian Mining and Engineering)

Tons 2,000 lbs.

Production for March 1961 .....	12,843.71
Valued at .....	£731,690.00*
Production for March 1960 .....	11,098.72
Valued at .....	£651,386.00*

\*Corrected to the nearest £.

## CANADA

(Dept. of Mines, Province of Quebec)

Tons 2,000 lbs.

Production for March 1961 (Quebec) .....	64,420
Other Provinces .....	6,218
	70,638

Total production for March 1960 was 71,579 tons.

## JOHNS-MANVILLE CORPORATION

First Quarter Report—1961

Consolidated earnings of Johns-Manville Corporation and subsidiary companies for the first quarter of 1961 were \$2,111,000, compared with \$4,652,000 for the corresponding period last year.

Sales for the first quarter of 1961 were \$69,901,000, compared with \$74,801,000 for the first three months of 1960. Earnings per share of common stock for the first quarter were 25c, compared with 55c for the same period last year.

## NATIONAL GYPSUM COMPANY

First Quarter Report—1961

National Gypsum Company reported net income of \$2,744,442, equal to 42c a share, for the first three months of 1961. This compared with income of \$3,791,786 or 60c a share for the first three months of 1960.

Net sales for the first quarter of this year were \$41,485,945 compared with sales of \$45,092,209 for the same 1960 period.

## CANADA'S MINERAL PRODUCTION

### Preliminary Estimate—1960

During 1960, the Canadian mineral industry produced mineral commodities which were valued at over \$2.47 billion according to a preliminary estimate prepared by the Dominion Bureau of Statistics, Ottawa. This valuation was about 2.6% higher than the \$2,409 million worth of minerals which were produced in 1959. Asbestos showed a gain in value of \$11 million.

Non-metallics continued to increase in total value to approximately \$195 million which was about double the value of these commodities ten years ago. In 1960, Canada produced 1,140,538 short tons, valued at \$118,700,998.

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## THE PHILIP CAREY MANUFACTURING COMPANY

### First Quarter Report—1961

Sales of The Philip Carey Manufacturing Company for the first three months of 1961 were \$11,644,079 compared to \$13,302,726 in the same months of 1960. Net earnings for the 1961 period were \$10,755 or \$.01 per share, compared with \$218,800 or \$.22 per share for the same period in 1960.

## SURVEYER, NENNIGER & CHÈNEVERT

### Complete Consulting Engineering Services for the Asbestos Industry

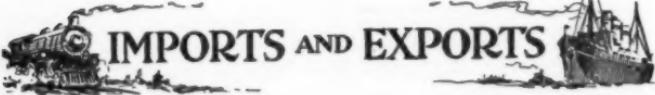
One of our Completed Projects: - Mill No. 5  
for Johns-Manville at Asbestos, Que., Canada

One of our Current Projects:-  
Advocate Mines, Baie Verte, Newfoundland

1440 St. Catherine Street West,

Montreal 25, Que., Canada

Ottawa - MONTREAL - Baie-Comeau



# IMPORTS AND EXPORTS

## Imports Into U.S.A.

(Figures by Bureau of Census)

### Unmanufactured Asbestos:

	Year 1960
	Tons (2,240 lbs.)
From: Canada .....	550,715
Union of South Africa .....	32,548
Rhodesia (Nyasaland) .....	4,461
Australia .....	4,130
Yugoslavia .....	4,087
United Kingdom .....	1,462
Finland .....	147
Mozambique .....	130
Venezuela .....	54
Portugal .....	20
Italy .....	7
Guatemala .....	2
	597,763
Valued at: .....	\$63,344,851

### By Grades:

Crude, No. 1,	Chrysotile, Portugal .....	16
Crude, No. 1,	Chrysotile, Rhodesia (Ny) .....	315
Crude, No. 2,	Chrysotile, Canada .....	25
Crude, No. 2,	Chrysotile, Rhodesia (Ny) .....	16
Crude, Other,	Chrysotile, Canada .....	294
Crude, Other,	Chrysotile, Venezuela .....	13
Crude, Other,	Chrysotile, Portugal .....	4
Crude, Other,	Chrysotile, Yugoslavia .....	4,087
Crude, Other,	Chrysotile, U. of S. Africa .....	1,932
Crude, Other,	Chrysotile, Rhodesia (Ny) .....	1,334
Crude, Blue,	United Kingdom .....	4
Crude, Blue,	Australia .....	4,130
Crude, Blue,	Mozambique .....	22
Crude, Blue,	Union of South Africa .....	12,074
Crude, Blue,	Rhodesia (Nyasaland) .....	1,203
Crude, Amosite,	Guatemala .....	2
Crude, Amosite,	United Kingdom .....	432
Crude, Amosite,	Union of South Africa .....	15,970
Crude, Amosite,	Rhodesia (Nyasaland) .....	1,081
Textile Fiber,	Chrysotile, Canada .....	17,118
Textile Fiber,	Chrysotile, United Kingdom .....	55

Textile Fiber,	Chrysotile, Italy .....	2
Textile Fiber,	Chrysotile, U. of S. Africa .....	141
Textile Fiber,	Chrysotile, Rhodesia (Ny) .....	98
Shingle Fiber,	Chrysotile, Canada .....	78,995
Shingle Fiber,	Chrysotile, U. of S. Africa .....	269
Paper Fiber,	Chrysotile, Canada .....	36,551
Paper Fiber,	Chrysotile, United Kingdom .....	2
Other Fibers,	Chrysotile, Canada .....	417,732
Other Fibers,	Chrysotile, Venezuela .....	41
Other Fibers,	Chrysotile, United Kingdom .....	969
Other Fibers,	Chrysotile, Finland .....	147
Other Fibers,	Chrysotile, Italy .....	5
Other Fibers,	Chrysotile, Mozambique .....	108
Other Fibers,	Chrysotile, U. of S. Africa .....	2,162
Other Fibers,	Chrysotile, Rhodesia (Ny) .....	414
		597,763

*Manufactured Asbestos Goods:*

		Year 1960
	Quantity (lbs.)	Value
Asbestos Yarn, Canada .....	132,287	\$ 122,765
United Kingdom .....	279,299	208,458
Belgium .....	5,143	7,339
W. Germany .....	522	791
Italy .....	44,678	41,634
Israel .....	165,530	74,758
Hong Kong .....	180	853
Japan .....	21,971	12,297
Asbestos Shingles (Impregnated)		
Canada .....	288,027	30,514
United Kingdom .....	23,370	1,582
Belgium .....	4,820,754	758,994
W. Germany .....	2,141	1,074
Austria .....	2,712	870
Italy .....	118,793	4,509
Japan .....	53,100	2,999
Asbestos Packing & Lining		
Canada .....	831	1,649
United Kingdom .....	245,945	83,009
W. Germany .....	2,432	1,330
Italy .....	86,030	27,703
Japan .....	13,545	5,764
Asbestos-Cement Pipe & Fittings		
(Not Impreg.), Canada .....	2,514,504	244,179
Mexico .....	12,289,566	914,638
United Kingdom .....	30,356	1,842
Belgium .....	24,678,151	1,928,129
W. Germany .....	4,754,867	226,073
Austria .....	1,276,252	63,298
Italy .....	30,276,612	1,258,277
Yugoslavia .....	1,074,637	49,327
Israel .....	3,134,063	149,257

Japan .....	682,501	37,473
Asbestos-Cement Mfgs., Other (Not Impreg.), Canada .....	1,892,560	71,893
Mexico .....	367,336	23,061
United Kingdom .....	51,360	3,549
Belgium .....	361,130	34,858
W. Germany .....	156,522	9,832
Italy .....	203,755	10,428
Yugoslavia .....	23,951	1,281
Israel .....	508,782	22,020
Asbestos Manufactures—Others		
Canada .....	..	7,060
Sweden .....	..	298
United Kingdom .....	..	24,042
Netherlands .....	..	196
W. Germany .....	..	1,566
Switzerland .....	..	9,327
Israel .....	..	166
Japan .....	..	142
	90,584,195	\$6,481,104

## Imports Into U.S.A.

(Figures by Bureau of Census)

### Unmanufactured Asbestos:

	January 1961
	Tons (2,240 lbs.)
From: Canada .....	39,718
Union of South Africa .....	2,262
Australia .....	403
United Kingdom .....	248
Rhodesia (Nyasaland) .....	183
Other Countries .....	184
	42,998
Valued at: .....	\$4,631,691

### By Grades:

Crude, Chrysotile, Union of South Africa .....	175
Crude, Blue, Australia .....	403
Crude, Blue, Union of South Africa .....	831
Crude, Blue, Rhodesia (Ny) .....	147
Crude, Amosite, United Kingdom .....	160
Crude, Amosite, Union of South Africa .....	875
Crude, Amosite, Other Countries .....	67
Textile Fiber, Chrysotile, Canada .....	623
Shingle Fiber, Chrysotile, Canada .....	6,713
Shingle Fiber, Chrysotile, Rhodesia (Ny) .....	36



## ARIZONA ASBESTOS

Mined and Milled by

**JAQUAYS MINING CORPORATION**

1219 S. 19th Avenue

PHOENIX, ARIZONA



Producers of Soft, Low Iron, White Chrysotile  
Crudes and Filter Fibre

**MINES AND MILL IN GILA COUNTY**



Paper	Fiber, Chrysotile, Canada .....	3,339
Other	Fibers, Chrysotile Canada .....	29,043
Other	Fibers, Chrysotile, United Kingdom .....	88
Other	Fibers, Chrysotile, U. of S. Africa .....	381
Other	Fibers, Chrysotile, Other Countries .....	117
		42,998

*Manufactured Asbestos Goods:*

	January 1961	
	Quantity lbs.)	Value
Asbestos Yarn, United Kingdom .....	16,384	\$ 12,015
Other Countries .....	7,107	9,022
Asbestos Packing .....	5,725	2,319
Asbestos Shingles (Impregnated) .....	35,621	5,474
A-C Pipe & Fittings (Not Impreg.)		
Mexico .....	1,369,338	121,685
Belgium .....	891,665	63,335
Austria .....	473,090	24,012
Italy .....	903,188	37,169
Other Countries .....	71,530	2,316
A-C Mfgs. Other (Not Impregnated)		
Italy .....	299,671	11,780
Other Countries .....	154,918	10,006
Asbestos Manufactures—Others .....	..	4,624
	4,228,227	\$303,757

Figures issued by the Board of Trade show that Britain's imports from the High Commission Territories in January 1961 totalled £282,299 in value compared with £68,221 in January 1960 and £44,140 in January 1959. The value of asbestos imports was £179,414 in January 1961 compared with £51,881 in January of the previous year.

**ac**

International Asbestos Cement Review  
 An architectural quarterly devoted to the  
 promotion of asbestos-cement, published  
 in English, French and German editions  
 Circulation exceeding 44,000  
 Editions Girsberger, 40 Kirchgasse,  
 Zurich, Switzerland  
 (U. S. agents: Wittenborn & Co.  
 38 East 57th Street, New York 22)

## Exports From U.S.A.

(Figures by Bureau of Census)

### Unmanufactured Asbestos:

To:	Tons (2,240 lbs.)	Year 1960	
		Value	
Canada	1,426	\$ 221,292	
Europe	2,079	396,383	
Central America & Mexico	10,543	78,760	
South America	387	47,000	
United Kingdom	161	17,017	
Other Countries	276	84,155	
	14,872	\$ 844,607	

### Manufactured Asbestos Goods:

	Quantity	Year 1960	
		Value	
Asbestos Cement & Pipe Covering Lbs.	6,976,628	\$ 1,906,238	
Asbestos Textiles & Yarn ... Lbs.	603,029	652,105	
Asbestos Packing ... Lbs.	2,042,147	2,476,765	
Asbestos Clutch Facing ... No.	1,461,015	1,149,765	
Asbestos Bk.Lng.(Mld&S.Mld) Lin. Ft.	1,430,016	695,776	
Asbestos Brake Lining, Other ... Lbs.	4,647,266	3,792,356	
Asbestos Construction Material ... Lbs.	19,922,595	2,237,444	
Asbestos Manufactures—Other ...	..	776,905	
		\$13,687,354	

## THE FLINTKOTE COMPANY

### First Quarter Report—1961

The Flintkote Company reported a net income for the initial three months of this year of \$533,616, equal after preferred dividend requirements to 1¢ per share, compared with \$1,042,935, or 10¢ per share a year ago.

Net sales for the March quarter of 1961 totaled \$46,503,676 compared with \$49,871,944 in the comparable period of 1960.

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## UNION ASBESTOS & RUBBER COMPANY

### First Quarter Report—1961

Union Asbestos & Rubber Company, Chicago, Illinois, reported net sales for the first quarter of 1961 at \$2,474,140 compared to \$2,709,687 for the same period in 1960.

The company's operations resulted in a loss of \$39,500 in 1961 as compared with a profit of \$2,504 in 1960.

## Exports From U.S.A.

(Figures by Bureau of Census)

### Unmanufactured Asbestos:

		February 1961
To:	Tons (2,240 lbs.)	Value
Europe	140	\$ 27,059
Canada	23	8,419
Central America & Mexico	27	7,833
Other Countries	33	3,612
	223	\$ 46,923

### Manufactured Asbestos Goods:

	February 1961	
	Quantity	Value
Asbestos Cement & Pipe Covering	Lbs. 306,073	\$ 57,337
Asbestos Textiles & Yarn	Lbs. 87,622	74,034
Asbestos Packing	Lbs. 171,564	216,092
Asbestos Clutch Facing	No. 114,811	80,528
Asbestos Bk Lng (Mld & S.Mld)	Lin Ft. 157,976	58,209
Asbestos Brake Lining, Other	Lbs. 295,839	233,467
Asbestos Construction Material	Lbs. 1,071,943	175,766
Asbestos Manufactures—Other		90,261
		\$985,694

## THE RUBEROID CO.

### First Quarter Report—1961

Net sales of The Ruberoid Co. for the quarter ending March 31st, 1961, totaled \$21,750,802 compared with \$24,777,816 in the like period of 1960. Net income for the 1961 first quarter amounted to \$113,726, equal to 6¢ per share. This compared with \$473,144, or 25¢ per share for the first quarter of 1960.

FOR SALE  
20 TONS RHODESIAN CHRYSOTILE ASBESTOS FIBER,  
4K GRADE, WELL MILLED, BELOW MARKET PRICE.

A. J. Hollander & Co., Inc.  
154 Nassau Street  
New York 38, N. Y.

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MASCHINENFABRIKEN

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DELMENHORST / GERMANY

Manufacturers of the finest and most modern plants for the production of asbestos-cement products, such as

pressure pipes

socket pipes

flat and corrugated sheets

Projecting — Erecting — Handing over  
in ready-for-operation condition

Get full information! Write now!



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# NEWS OF THE INDUSTRY

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## HAPPY BIRTHDAY

Fred A. Wagner, Treasurer, National Gypsum Company, Buffalo, New York, May 30.

Henry Condell, Owner, Asbestos Processing Company, New York City, June 15.

Alexander S. Basil, President, Rockbestos Wire & Cable Company, Division of Cerro de Pasco Corporation, New Haven, Connecticut, June 20.

E. B. Poulin, Secretary-Treasurer, Asbestonos Corporation Limited, Montreal, Canada, June 20.

Ladd L. Wilson, Vice President—Sales, Nicolet Industries, Inc., Florham Park, New Jersey, June 20.

L. W. Clarke, Jr., The Philip Carey Manufacturing Company, Cincinnati, Ohio, June 26.

Thomas J. Walters, Assistant Manager—Industrial Products Department, The Ruberoid Co., New York City, June 27.

L. B. Palmer-Ball, President, Palmer Asbestos Company, Louisville, Kentucky, June 29.

Vincent W. Hemphill, Secretary, Standard Asbestos Manufacturing Company, Chicago, Illinois, July 1.

Chas. S. Wood, Treasurer, Chas. S. Wood & Company, Newark, New Jersey, July 6.

C. L. Hoshaw, Manager of Insulation Technical Service and Construction, The Philip Carey Manufacturing Company, Cincinnati, Ohio, July 7.

George K. McKenzie, Executive Vice President & Director, The Flintkote Company, New York City, July 7.

Captain W. A. Janitch, R.E., Representative in Great Britain for Asbestos Corporation Limited, London, England, July 10.

Alvin M. Ehret, Jr., Chairman of the Board, Baldwin-Ehret-Hill, Inc., Trenton, New Jersey, July 11.

Irving McCormick, President, The McCormick Asbestos Company, Baltimore, Maryland, July 13.

John F. Sullivan, Jr., President, Asbestos & Magnesia Materials Company, Chicago, Illinois, July 13.

Carlo M. Weber, Manager—Careystone Corrugated Department, The Philip Carey Manufacturing Company, Cincinnati, Ohio, July 14.

To all these gentlemen we extend congratulations and best wishes on the occasion of their birthdays.

---

**R. H. Dent** has been elected Deputy Chairman of THE CAPE ASBESTOS COMPANY LIMITED. He will continue as Joint Managing Director.

**Your dependable, established, volume supplier of high-grade asbestos for every application is Lake Asbestos of Quebec. LAQ is an independent source of uniform quality chrysotile asbestos fibre and its annual capacity of 100,000 tons is your assurance of continuous supplies. For additional information, call or write Lake Asbestos of Quebec, Ltd., 120 Broadway, New York 5, N. Y., or your nearest sales agent.**

**NORTH AMERICAN SALES AGENTS:**

California, Los Angeles E. B. Taylor Company	Michigan, Detroit Baker & Collinson	Oregon, Portland Van Waters & Rogers, Inc.
California, San Francisco E. M. Walls Company	Missouri, Kansas City & St. Louis Missouri Solvents & Chemicals Co.	Pennsylvania, Conshohocken Van Horn, Metz & Co., Inc.
Colorado, Denver Braun-Krech-Heimann Co.	New York, Buffalo Buffalo Solvents & Chemicals Corp.	Texas, Houston Federated Metals Division
Illinois, Chicago Central Solvents & Chemicals Co.	New York, New York D. H. Litter & Co., Inc.	Utah, Salt Lake City Braun-Krech-Heimann Co.
Indiana, Indianapolis & Ft. Wayne Hoosier Solvents & Chemicals Corp.	Ohio, Cincinnati Amsco Solvents & Chemicals Co.	Washington, Seattle Van Waters & Rogers, Inc.
Kentucky, Louisville Dixie Solvents & Chemicals Co.	Ohio, Cleveland A. C. Mueller Co., Inc.	Wisconsin, Milwaukee Wisconsin Solvents & Chemicals Corp.
Massachusetts, Allston D. H. Litter & Co., Inc.		In Canada: Toronto & Montreal Federated Metals Canada, Ltd.

**LAKE ASBESTOS OF QUEBEC, LTD.**  
a subsidiary of American Smelting and Refining Company



**ASARCO**

**Fred A. Wagner** was elected Treasurer of NATIONAL GYPSUM COMPANY and succeeds Walter S. Corrie who is retiring. In his new post, Mr. Wagner will report to Charles E. Masters, Vice President—Finance and his responsibilities will include trust funds, investment of surplus funds, bank depositories, ordnance plants and subscriptions, donations and dues budgets. He also will be responsible for trade credit policies and the methods, payroll, office services and insurance departments. He was formerly Assistant Treasurer and joined National Gypsum in 1942.

**R. Roy Harley** was elected Assistant Treasurer of NATIONAL GYPSUM COMPANY. In this position, he will report to the Treasurer and his responsibilities will include office services and insurance. Mr. Harley joined National Gypsum in 1942 as Insurance Manager and was promoted to Office Manager in 1945.

**Clarence O. Dorschel** has been promoted as Manager of NATIONAL GYPSUM COMPANY's St. Louis, Missouri, asbestos-cement building products plant.

Mr. Dorschell joined National Gypsum in 1953 as a Production Assistant. He subsequently was promoted to Production Control Manager at the company's Buffalo, New York, headquarters. Since 1956 he has served as Production Superintendent of National's Millington, New Jersey, asbestos-cement plant.

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**H. Daniel Ferry** and **Stephen T. Bard** have joined the staff of the Methods Department, at KEASBEY & MATTISON COMPANY, Ambler, Pennsylvania, it was announced by L. J. Kaas, Methods Department Manager. Both Mr. Ferry and Mr. Bard are industrial engineers.

**Hanford Gruher**, Manager of the Market Research and Development Department of KEASBEY & MATTISON COMPANY, Ambler, Pennsylvania, will serve as faculty associate at the Graduate School of Sales Management & Marketing at Syracuse University, Syracuse, New York, during the 9th annual session of the executive development program scheduled from June 13-29, 1961. He will lead case methods studies and participate in other study activities in the period of June 27th-29th.

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**M. P. Carson** has been appointed as an Assistant General Sales Manager of ASBESTOS CORPORATION LIMITED, effective May 1st, 1961. He was formerly a Canadian Government Trade Commissioner for many years and saw service in South America, the United States and the Far East.



Exporters of

## RAW ASBESTOS

ALL GRADES—ALL TYPES

**C. J. PETROW & COMPANY** (PTY.) LTD.

P. O. BOX 11000

RAND CENTRAL — 165 JEPPE STREET

**JOHANNESBURG - SOUTH AFRICA**

OFFICES ALSO IN: TOKYO (JAPAN) AND BULAWAYO (SO. RHODESIA)

## INDUSTRIAL SERVICE COMPANY

Builders of

## ASBESTOS CEMENT MACHINERY

Our experienced engineers and machinists offer the industry entire machines built to deliver maximum production.

Your Inquiries Are Invited

1-51 Paterson Avenue

E. Rutherford, N. J.

**Everite Limited** of Kliprivier, Transvaal, South Africa, intend building a factory at Durban, Salisbury, for the manufacture of their range of asbestos-cement roofing products, flat sheets, moulded articles, etc. Construction work on the factory will commence in May of this year. The factory is designed for a production of 28,000 tons of asbestos-cement material per annum in the first stages and this production can be increased should the market justify it.

In addition, the company intends later to re-erect, on the same site, a modern factory for the production of asbestos-cement pipes with a capacity of 15,000 tons per year. These factories, which will be in addition to their existing factories in Kliprivier, Transvaal and Brackenfell, Cape, will be well placed to cope with the probable expansion of the Natal market and with export enquiries.

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**Turner & Newall Limited** intend to build a factory in the Eastern Region of Nigeria which will provide regular work for 300 Nigerians. The factory is planned to be at Emene, seven miles from Enugu, the capital of the Eastern Region. It will produce, eventually, 17,000 tons of asbestos products a year. The market will include the Eastern, Northern and a large part of the Western Region of Nigeria.

Cement will come from an established factory at Nkalago, 20 miles from the new factory, and asbestos will be landed from Canada at Port Harcourt from whence it will be transported 170 miles by rail to Emene.

The new factory will cover 120,000 square feet in a site of 16 acres. Test borings for water on the site are nearing completion.

The name of the new public company formed in Nigeria is **TURNERS ASBESTOS CEMENT (NIGERIA) LIMITED**.

**WANTED:** Men who is qualified to help busy executive with production engineering problems, insulation specialties, development problems, etc. Mechanical, chemical engineering background desired. Excellent opportunity with 4-A company, located in Midwest, for the right man with unlimited ambition. Reply to Box No. 5UA-B1, "ASBESTOS", 807 Western Saving Fund Building, Philadelphia 7, Pennsylvania.

**BELL ASBESTOS MINES LTD.**

**THETFORD MINES, QUE.**

**CANADA**



*Producers of*  
***Raw Asbestos Crudes***  
***& Fibres***



***Sales Representatives***

***for***

**Cassiar Asbestos Corporation Limited**

**Karl V. Lindell** has been elected Chairman of the Board of CANADIAN JOHNS-MANVILLE COMPANY LIMITED, by the directors of the company.

He joined Canadian J-M in 1945 as Mine Superintendent of the company's asbestos mine at Asbestos, Quebec, Canada. He became General Manager of the Asbestos Fibre Division in 1951 when he was also elected a Vice President and Director. He will retain responsibility for directing Canadian J-M's extensive asbestos operations.

Mr. Lindell is a graduate mining engineer, holds a Doctor of Science degree and is President of the Quebec Asbestos Mining Association. His headquarters are at Asbestos, Quebec.

**A. G. W. Sinclair** has been elected President of CANADIAN JOHNS-MANVILLE COMPANY LIMITED.

He joined Canadian J-M in 1934 as a Sales Engineer in Winnipeg. In 1947, he became General Sales Manager of Canadian J-M's Canadian Products Division and was elected a Vice President and Director. He was appointed General Manager of the Division in 1959 and will retain this post in addition to his new responsibilities as President.

Mr. Sinclair's headquarters are at Port Credit, Ontario.

**J. O. Eby**, Jeffrey Mine Manager of CANADIAN JOHNS-MANVILLE COMPANY LIMITED, Asbestos, Quebec, has been appointed Vice President of Canadian J-M. He joined Canadian Johns-Manville in 1947, as Superintendent of the Underground Mine. In November 1951, he was made Manager of the Jeffrey Mine.

**Francis E. Dutcher** has been appointed General Manager of the Building Products Division and elected a Vice President of JOHNS-MANVILLE CORPORATION. He succeeds **R. S. Hammond**, Vice President of Johns-Manville, who is assigned to special duties in the Office of the President until his retirement on August 1, 1961, after 35 years company service.

As General Manager, Mr. Dutcher will be responsible for the production, sales and profits of the J-M Building Products Division, which operates 18 plants and a network of sales offices throughout the United States.

**Charles D. Borrow, Sr.**, Production Engineer, Asbestos Fibre Division of CANADIAN JOHNS-MANVILLE COMPANY LIMITED, Asbestos, Quebec, has been appointed Manager of Coalinga Asbestos Company in California.

Mr. Borrow joined Canadian J-M in May 1928 as a Mining Engineer at Jeffrey Mine and since August 1952, has held the position of Production Engineer for the Asbestos Fibre Division, with the added responsibility of liaison between the General Manager and the Advocate Mines Limited management on all mining construction problems.

# **RAW ASBESTOS DISTRIBUTORS**

**L I M I T E D**

**FOR CANADIAN, RHODESIAN  
AND SOUTH AFRICAN ASBESTOS**

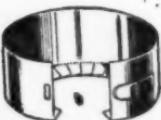
**ASBESTOS HOUSE • 77-79 FOUNTAIN ST. • MANCHESTER 2  
E N G L A N D**

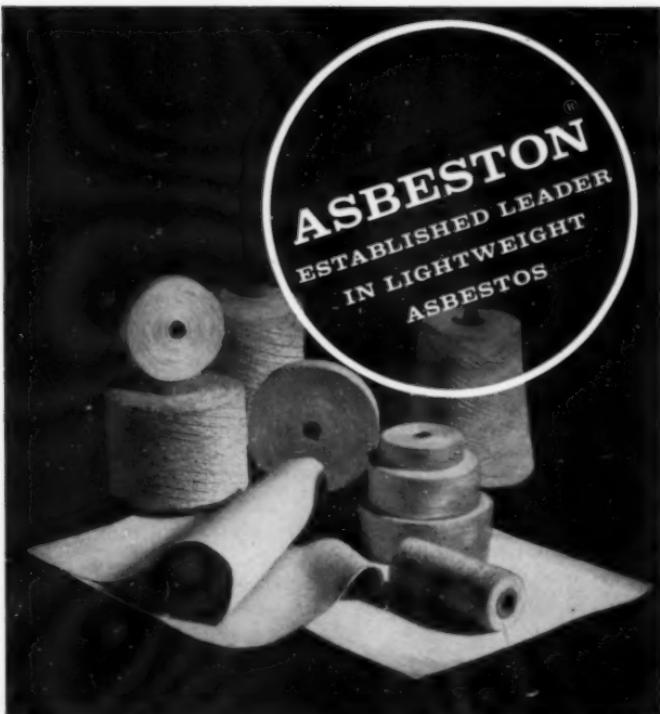
## ASBESTOS STOCK QUOTATIONS

(These figures are compiled from the Commercial & Financial Chronicle. No guarantee as to their correctness.)

			May 1961	
	Par	Low	High	Last
Advocate Mines, Ltd.	1	\$3.85	\$4.25	\$3.85
American Brake Shoe	np	45%	47%	47%
Armstrong Cork (Com)	1	53½	56½	56
Armstrong Cork (Pfd)	np	81½	83½	83
Asbestos Corporation	np	26½	29%	29½
Philip Carey	10	29½	31%	30%
Cassiar Asbestos Corp.	np	13%	15½	14½
Celotex (Com)	1	27½	30%	28½
Celotex (Pfd)	20	18%	19½	19
Certain-Teed	1	41½	63%	58½
Fibreboard	np	27½	34%	33½
Flintkote (Com)	5	28%	34%	32½
Flintkote (Pfd)	np	83½	87½	85
Johns-Manville	5	65½	74%	71½
National Gypsum (Com)	1	53½	58%	58½
National Gypsum (Pfd)	np	91%	94½	94½
Porter, H. K.	100	90½	94½	92½
Raybestos-Manhattan	np	68%	82	75
Rubberoid	1	40½	42%	42
Unarco	5	8%	9½	8%
United Asbestos	1	\$4.50	\$5.95	\$5.20
U. S. Gypsum (Com)	4	97	106	101%
U. S. Gypsum (Pfd)	100	154½	156	156
U. S. Rubber (Com)	5	50½	60%	59%
U. S. Rubber (Pfd)	100	156%	160%	157½

### PIPE COVERING PROTECTORS

  
*The "Royal" All Aluminum Adjustable  
and Permanent Protector for Pipe*  
*Covering-ends. Easy to Apply . . . Prompt Shipment.*  
**THE PROTECTOR CO. • GRANT WILSON, INC.**  
 SO. BOSTON 27, MASS. CHICAGO 4, ILL.



When you need asbestos in any textile form, specify ASBESTON . . . for twenty years the leader in lightweight asbestos textiles.

And when unusual or special high-temperature conditions must be met, call on our experienced technicians to adapt the unique ASBESTON spinning process to the special yarns or fabrics you need.

For detailed information on how ASBESTON yarns, fabrics or tapes can serve you best, write us today.



Textile Division  
**United States Rubber**

Rockefeller Center, New York 20, N. Y.

## CURRENT RANGE OF PRICE

As of June 10, 1961

### **ARIZONA—**

Per Ton of 2,000 lbs., f.o.b. Globe, Arizona

No. 1 Crude (soft) .....	\$1,650.00 to \$1,800.00
No. 2 Crude (soft) .....	800.00 to 1,000.00
Group No. 3 (Filtering & Spinning) .....	375.00 to 450.00
Group No. 4 (Plastic & Filtering) .....	225.00 to 250.00
Group No. 5 (Plastic & Filtering) .....	190.00 to 225.00
Group No. 7 (Refuse & Shorts) .....	58.00 to 90.00

### **CANADA—**

Per Ton 2,000 lbs. f.o.b. Mine  
Canadian Currency

Group No. 1 (Crude No. 1) .....	\$1,410.00 to \$1,475.00
Group No. 2 (Crude No. 2); Crude Run-of-Mine and Sundry .....	610.00 to 875.00
Group No. 3 (Spinning Fibre) .....	350.00 to 650.00
Group No. 4 (Shingle Fibre) .....	180.00 to 245.00
Group No. 5 (Paper) .....	120.00 to 150.00
Group No. 6 (Waste, Stucco or Plaster) ..	.. 86.00
Group No. 7 (Refuse or Shorts) .....	40.00 to 80.00

**VERMONT**—Per ton of 2,000 lbs. f.o.b. Hyde Park or Morrisville,  
Vermont

Group No. 3 (Spinning & Filtering) .....	\$ 345.00 to \$ 402.00
Group No. 4 (Shingle Fibre) .....	181.00 to 320.00
Group No. 5 (Paper Fibre) .....	120.00 to 142.00
Group No. 6 (Waste, Stucco or Plaster) ..	.. to 86.00
Group No. 7 (Refuse or Shorts) .....	40.00 to 75.00

**James B. Anchors**, formerly president of Kelley Asbestos Company, has recently severed his connection with Kelley and has formed his own company, the INSULATION AND ACOUSTICAL SPECIALTIES, INC., located at 901 West 17th Street, Kansas City 8, Missouri.

Mr. Anchors is in the process of opening offices in both Wichita, Kansas, and Omaha, Nebraska, as well as his Kansas City operations. He is currently President of MICA and was one of the original founders of the MICA organization and has served on the Board of Directors for the past three years.

### NEWARK HAIR FELT COMPANY

LOW TEMPERATURE INSULATION

1000 Maple Avenue  
LANSDALE, PENNA.



Built on a rock



Crude Asbestos is the rock on which  
B.B.A. is built. We use it to make everything  
for which asbestos is best, from yarns and  
cloths to all types of jointings and packings  
—and the world famous MINTEX friction  
materials and MINTEX Industrial Plastics.  
Our factory leads in production; our  
Research Laboratories keep us at the head  
of development; Asbestos is our subject.

**British Belting & Asbestos Ltd**

CLECKHEATON, YORKSHIRE, ENGLAND

## PATENTS

### Abstracts of U. S. Patents on Asbestos and Asbestos Products by Oliver S. North.

Copies of patents can be obtained by sending 25 cents, (in coin), to The Commissioner of Patents, Washington 25, D. C., giving the patent number, date it was issued, name of patentee and name of invention.

**Flame Retarding Composition and Fabric Treated Therewith**, No. 2,948,641. Granted on August 9, 1960 to J. D. McCluer (assigned to Thermoid Company, Trenton, New Jersey). In the treatment of asbestos fabric to render it flame retarding and to improve its flexibility and other characteristics, a mixture of mica, a fluoborate salt and a plasticizer is applied to it.

**Brake Element**, No. 2,971,615. Granted on February 14, 1961 to J. W. Ryznar (assigned to Nalco Chemical Company, a corporation of Delaware). In the manufacture of a hard solid type brake element, asbestos yarn is impregnated with silica aerogel or the like and then dried.

**Insulation Material and Method of Making Same**, No. 2,971,878. Granted on February 14, 1961, to R. H. Heilman, R. W. Ortmiller and A. P. Mueller (assigned to The Philip Carey Manufacturing Company, Cincinnati, Ohio). Method for making molded thermal insulating shapes from an aqueous slurry consisting of about 48% expanded perlite having a bulk density in the 3 to 8 pounds per cubic foot range, 10% of a mixture of Canadian chrysotile and South African amosite asbestos fibre, 12% water-swelling bentonite, 15% of 85%-magnesia plastic, and 15% lightly calcined diatomite. Water can be rapidly pressed out of this composition during the filter molding operation.

**Filter Media and Method of Making**, No. 2,971,907. Granted on February 14, 1961 to W. J. Smith (assigned to United States Atomic Energy Commission). In the manufacture of a composite fiber filter capable of filtering out submicronic particles from a liquid suspension, blue asbestos fibre is admixed with glass fibers.

**Method of Converting Individual Fibers Into Coherent Fibrous Bodies**, No. 2,972,221. Granted on February 21, 1961 to W. Wilke and H. Fetzer (assigned to Rex Asbestwerke Graf von Rex K. G., Schwabisch Hall, Germany). In the preparation of coherent bodies in which the original fibrous character of asbestos fiber is preserved, the asbestos is colloidally dispersed in an aqueous medium, and the resulting slurry passed through a forming channel whose outlet portion has the desired cross-sectional shape. As the formed body emerges from the channel outlet it is solidified by chemical and/or thermal reaction.



## R/M INSULATING TAPES SAVE WEIGHT IN INSULATING SHIPBOARD AND PLANT PIPING

R/M Thermal Insulating Tapes, made to Military Spec. MIL-I-15349A, consist of a tubular woven asbestos sheath in A.S.T.M. Grade AA and a stuffer of fiber glass slivers. The stuffer or insulating medium provides a weight saving of 6-19% in Type I and 20-36% in Type II, compared with the same sheath containing Amosite asbestos stuffer. R/M supplies these tapes in the three sizes covered by MIL-I-15349A and in eight additional sizes. Generally specified for insulating small piping aboard ship, they are also used in industry wherever vibration or physical abuse would damage or destroy standard sectional insulating materials. Write for samples and product data.



ASBESTOS TEXTILE DIVISION  
**RAYBESTOS-MANHATTAN, INC.**

Manheim, Pa.

SPECIALISTS IN ASBESTOS, RUBBER, SINTERED METAL, ENGINEERED PLASTICS

# ASBESTOS — TEXTILES



**H. K. PORTER COMPANY, INC.**  
THERMOID DIV., CHARLOTTE WORKS  
CHARLOTTE 1, N. C.

